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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,558	04/28/2006	Masakuni Yamamoto	03500.109457.	8191

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FITZPATRICK CELLA HARPER & SCINTO  
1290 Avenue of the Americas  
NEW YORK, NY 10104-3800

EXAMINER
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FISCHER, MARK L

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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02/26/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,558	<b>Applicant(s)</b> YAMAMOTO, MASAKUNI	
	<b>Examiner</b> Mark L. Fischer	<b>Art Unit</b> 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on June 3, 2004. It is noted, however, that applicant has not filed a certified copy of the **2004-165875** application as required by 35 U.S.C. 119(b).

### ***Information Disclosure Statement***

2. In the IDS filed on September 28, 2006, the citation of **U.S. reference 2003/0223341 A1** under the U.S. Patent Documents section and the citation of **JP reference 2004-5787 A** under the Foreign Patent Documents section have not been marked as considered because the references have been cited and considered in the IDS filed on September 5, 2007.

### ***Drawings***

3. **Figures 8 and 9** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The specification is objected to for non-compliance with 37 CFR § 1.77(b)(2) because the priority statement on **Page 22, lines 21-24** is misplaced. Therefore, the priority statement should be moved to an appropriate section of the specification and given an appropriate heading. See MPEP §608.01(a) [R-5].

***Claim Objections***

5. **Claims 1 and 3** are objected to under 37 CFR § 1.75(i), as being of improper form because “[w]here a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation.” See MPEP § 608.01(m) [R-7].

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**Claim 1** recites the limitation “detecting reproduced signals” (**line 10**) which is indefinite because it is unclear where the “reproduced signals” were generated from and how the “reproduced signals” came into being.

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**Claim 1** recites the limitation “the recording domain” (**line 11**) which is indefinite in light of “recording domains” (**line 4**) because it is unclear which recording domain of the “recording domains” is being referred to.

**Claim 1** recites the limitation “the information” (**line 12**) which lacks antecedent sufficient antecedent basis in the claim because even though the preamble recites “A method for recording and reproducing information ...”, there is no clear step in the body of the claim claiming that “the information” is recorded.

**Claim 1** recites the limitation “the shift direction and/or shift degree” (**lines 15-16**) which lacks sufficient antecedent basis in the claim.

**Claim 1** recites the limitation “comparison with levels of the plural reproduced signals” (**last two lines**) which is indefinite because it is unclear what the “comparison” is comparing the “levels of the plural reproduced signals” with.

**Claim 2** recites the limitation “the reproduced signal” (**lines 1-2**) which is indefinite in light of “reproduced signals” (**Claim 1, line 10**) because it is unclear which reproduced signal of the “reproduced signals” is being referred to.

**Claim 2** recites the limitation “the reproducing light spot” (**line 3**) which lacks sufficient antecedent basis in the claim.

**Claim 3** recites similar limitations as claim 1 and is therefore rejected for the same reasons that claim 1 was rejected as shown above.

**Claim 3** recites the limitation “an information-recording circuit for recording an information-coding pit ...” (**lines 3-4**) which does not distinctly claim the applicant’s invention

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because the “information-recording circuit”, on its own, cannot perform the functional language of “recording”.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Shirota et al (US 2003/0067857 A1) hereinafter Shirota.**

**Regarding claim 3**, Shirota discloses an apparatus (Fig. 1) for recording and reproducing information in multiple levels, comprising:

an information-recording circuit (¶ 0054 and Fig.1: recording control 10) for recording an information-coding pit (¶ 0005: recording mark) at one of multiple levels (Fig. 6: “recording data” shows a logic high level for a pit and a logic low level for a land) in each of recording domains (Fig. 7A: the fact that marks 52 and 53 do not overlap inherently establishes the fact that each pit has its own recording domain) placed successively on a track of an optical information recording medium (Fig. 7A: marks 52 and 53 are successive; ¶ 0054: “tracking servo” inherently suggests that marks 52 and 53 are on a track) by utilizing combination of a width in a track direction of an information-coding pit and a position in the track direction of the information-coding pit (¶¶ 0021, 0103: length and starting position determine recording mark);

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a detecting circuit (¶¶ 0061, 0101: “photodetector” and inherent circuit that performs “photoelectric conversion”) for detecting reproduced signals (i.e. reflected light from read spot SP) at two or more positions in the recording domain (¶ 0101 and Fig. 8A, 8B: continuous nature of reproducing signal waveform 63 confirms that reproduced signals have been detected by read spot SP being at more than one position on the recording mark);

an information reproducing circuit (Fig. 1: reproduction control 20) for reproducing the information according to judgment of the width of the information pit by comparison of the reproduced signals with a predetermined threshold width value (Fig. 8A, 8B and ¶ 0101: threshold level TH determines length of mark) and judgment of the shift direction and/or shift degree by comparison with levels of the plural reproduced signals (¶ 0103 and Fig. 8B: shifted mark positions are detected by comparison with threshold TH).

**Regarding claim 1:** Claim 1 is a method directed to the functional operation of the apparatus of claim 3, and is rejected for the same reasons applied to claim 3 above.

**Regarding claim 2,** in addition to the method of Shirota set forth in the rejection of claim 1, Shirota discloses that the reproduced signal is detected at a time when the center of the reproducing light spot has come to the center of the width in the track direction of the information-coding pit (Fig. 8A: the continuous nature of reproducing signal waveform 63 confirms that a portion of 63 is detected when read spot SP is at a center of mark 61).

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***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: **Maeda (US 7359302 B2)** and **Yamamoto (US 5555231)** teach recording at multiple values utilizing width and position of an information-coding pit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Fischer whose telephone number is (571) 270-3549. The examiner can normally be reached on Monday-Friday from 9:00AM to 6:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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